

Muskellunge (*Esox masquinongy*) Fact Sheet

Common Names: Muskellunge, musky, muskie, lunge, Wisconsin muskellunge, northern muskellunge, maskinonge, tiger muskellunge (used for the muskellunge/northern pike hybrid).

Meet the muskellunge -- a lean, mean fightin' machine that is the most sought-after trophy fish in Wisconsin. Named the official state fish in 1955, this ferocious member of the pike family is often implicated in fish stories as "the one that got away."

The muskellunge plays a starring role in Wisconsin's tourism industry. Wisconsin offers some of the best muskellunge fishing on the planet; yet it still takes the average angler more than 50 hours to catch a legal muskellunge. Millions of dollars are spent at lodges, resorts, restaurants, service stations and sporting goods stores around the state every year by those in pursuit of the elusive fish.

Why do some anglers forsake all other fish for just one rendezvous with a muskellunge? Because having a muskellunge on the other end of the line is the aquatic equivalent of having a tiger by the tail. The muskellunge will confound the angler with its aerial acrobatics, one moment leaping completely out of the water to shake the hook; the next lying still on the bottom like an unyielding snag. These famous fighters have been known to drag the line underneath the boat and wrap it around the nearest submerged tree stump. They will crack rods, strip reels, bend hooks, mutilate the bait and do whatever else they can to escape. Hooking a muskellunge is a first class fresh-water thrill no angler will ever forget.

Distribution

The lakes and rivers of Wisconsin's north are the natural home for muskellunge, but fish stocking has expanded the muskellunge's original range into the southern part of the state. About twenty-five percent of Wisconsin's muskellunge populations have been established through stocking.

lakes with few weeds. Most comfortable in cool water temperatures (33 to 78 degrees Fahrenheit), the muskellunge can withstand temperatures up to 90 degrees Fahrenheit for short periods.

Lurking around stumps, rocky ledges or shoals, hiding among broadleaved pond weeds or other vegetation, the sedentary muskellunge waits patiently to attack: As soon as a fish (any species will do, from gamefish to minnows to other muskellunge, with suckers and perch particular favorites) swims into view, the muskellunge strikes, impaling the prey sideways on its large canines, then rotating the fish and swallowing it head first. Muskrats, ducks, shrews, mice and frogs also appear in the stomach of muskellunge from time to time. Muskellunge feeding habits are generally unpredictable.

There appears to be a direct relation between size of muskellunge and the size of the food fish they eat. The growth of larger muskellunge may be impaired if food of adequate size is not available, in spite of large numbers of smaller food fishes.

This superlative predator depends primarily on sight to capture prey. Muskellunge may have more difficulty feeding in waters where turbidity (murkiness caused by solids suspended in water) has increased from pollution or too much disruption by bottom-feeding fish species.

Life Cycle

Muskellunge spawn from mid-April to late May, when the water temperature rises to between 50 and 60 degrees Fahrenheit. The males and females seek shallow bays with muck bottoms covered by dead vegetation, swimming side by side over several hundred yards of shoreline and shedding eggs and milt (sperm) simultaneously at irregular intervals. Females will lay between 22,000 to 180,000 eggs, with larger females producing greater numbers of larger eggs. Spawning continues for several days but seldom lasts more than a week; when it's over, the adults leave the area, providing no parental care. Muskellunge return to the same area each year to spawn.

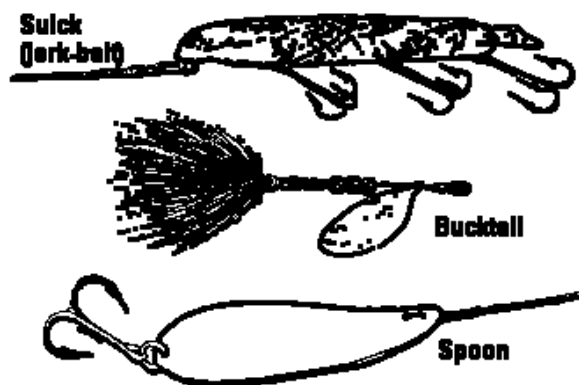
The clear, amber-colored eggs hatch in about two weeks, and the fry (young fish) grow to seven to 13 inches by the end of the summer. The fry begin feeding on zooplankton (microscopic aquatic animals) the day after they hatch; after a few more days, they prefer to eat live fish.

The muskellunge grows most rapidly during the first three to five years of life. Males reach maturity at four to five years, when they are 28 to 31 inches long; females mature at five to seven years, at 30 to 36 inches. Most muskellunge live to be about 18 or 19 years old, but some fish up to 30 years old have been caught.

Very young muskellunge are preyed upon by northern pike, yellow perch, bass, sunfish, certain aquatic insects and occasionally, other muskellunge; older fish have no aquatic predators but may fall victim to disease, large birds of prey, or people. While young muskellunge acquire the noted stealth of adults early on, it doesn't always work to their advantage. The young fish may neglect to note the presence of predators while they remain motionless in the water for 15 minutes or longer, concentrating intently on potential prey.

Fishing for Muskellunge

Patience is probably the most important item in a muskellunge angler's tackle box. Other elements of traditional muskellunge gear include a heavy bait casting rod; substantial level-wind reel; 20-35 pound test line; and a variety of large artificial lures such as plugs, bucktail spinners, and spoons. Some anglers prefer to cast or drift with live bait – usually a sucker 10–14 inches long.



Musky lure examples: Suick (jerk-bait), ducktail and spoon.

Muskellunge lurk near the drop-offs from rock or sand bars in the middle of lakes; along weed beds; in small weed-covered bays; and in shady waters close to shores that are fringed with overhanging trees. Muskellunge generally strike bait that has considerable “action,” so keep the bait moving and don’t let it rest. When a muskellunge hits, set the hook immediately and firmly in its hard, bony jaws, keep a taught line, and hold on for the ride of your life – you might have a fish larger than the 69–pound, 11 ounce Wisconsin record muskellunge caught in the Chippewa Flowage in 1952.

Most Wisconsin anglers indulge in muskellunge mania through “catch and release.” Simply put, you catch the fish and let it go, to be caught again some other day by an equally fortunate angler. You’ll be able to enjoy hooking Wisconsin’s most fearsome fish – and with a camera, your fishing companions can take a quick snapshot to support the best “believe it or not” fish story you’ll ever tell.

To catch and release, don’t land the fish; reel it in next to the side of the boat and remove the hook as gently as possible with pliers, or cut the hook off with a heavy wire cutter.

If you plan to land a trophy muskellunge, be sure to have a large landing net ready to subdue the fish. Trophy specimens to be mounted should be frozen as soon as possible.

A word of caution to humans that feed on muskellunge: Some larger, older muskellunge are contaminated with PCBs (polychlorinated biphenyls), pesticides and mercury. Because they are predators at the top of the food chain, muskellunge accumulate toxins in their bodies as they feed on smaller fish which contain trace amounts of contaminants. DNR publishes a [Fish Consumption Advisory](#) listing waters that contain muskellunge unsafe to eat.

Management Practices

The three primary tools used to manage muskellunge in Wisconsin are:

- Protection of Habitat and Water Quality
- Stocking
- Angling Regulations

Habitat Protection

Maintaining good habitat and water quality is the first step in any fishery management program. Without good habitat, other management actions would be futile. Habitat protection for muskellunge is critical if we are to maintain natural reproduction, allow young muskellunge to survive their early life stages, and support the healthy aquatic community that musky depend on throughout their lives. Habitat protection is an ongoing struggle in the face of increasing lakeshore development and wetland encroachment. Habitat protection measures include enforcement of shoreline, wetland, and water quality regulations; purchasing and preserving important shorelands and wetlands; and educating property owners about good shorelands management.

Stocking

Much of the success of Wisconsin's muskellunge management program can be credited to an excellent propagation and stocking program. Stocking has been used to establish new fisheries, but most stocking is done to maintain fisheries where natural reproduction, for various reasons, may be inadequate or nonexistent. [State hatcheries](#) produce large muskellunge fingerlings from eggs which are collected each spring from wild fish. The cost to produce and stock large musky fingerlings is high (between \$2.50 and \$3.00 each) compared to other species, and the relatively few fish that survive to reach large size are worth considerably more. The cost, however, can be justified in terms of the total value of the recreation and benefits to the economy provided by the fishery. Most anglers who catch a musky know that the experience is not something that can be measured in dollars!

Angling Regulations

Angling regulations, such as size limits and closed seasons, can be important and cost-effective management tools. Regulations help to allow sufficient numbers of muskellunge to survive to a size that anglers want to catch. In addition, effective regulations can benefit natural reproduction by assuring that adequate numbers of muskellunge survive to maturity, and preferably long enough to spawn more than once.

Although the muskellunge has always been considered a trophy fish, in recent years the sport of musky fishing has evolved rapidly toward a much greater emphasis on quality size fish rather than just quantity. [Catch-and-release](#) is now widely practiced among dedicated musky anglers, and regulations have become more restrictive in Wisconsin as well as in neighboring states and Canada. In 1996, the Wisconsin statewide muskellunge size limit was 34 inches, but several dozen waters now have special regulations such as 40-inch, 45-inch, and even 50-inch minimum length limits.

This trend toward stricter protection of muskellunge is a necessary result of the increased popularity of musky fishing and greater pressure on the resource. Some have argued that stricter regulations are not needed and because voluntary catch-and-release is doing enough for the fishery. Catch-and-release has definitely had positive impacts; however, harvest of muskellunge continues to be high enough that many waters remain well below their potential for producing trophy fish. A combination of effective [regulations](#) and voluntary catch-and-release of large muskellunge is the best way to realize more of the potential of our waters to produce trophy muskellunge.

Environmental Concerns

Good spawning habitats and clear, clean water are essential to the health of Wisconsin's muskellunge populations. Dredging, shoreline development, siltation and pollution must be controlled to prevent further erosion of muskellunge waters.

For information on bag limits, legal size and seasons for muskellunge, you can download a copy of Wisconsin's [fishing regulations](#) or pick one up at the nearest [DNR office](#).

Additional Reading

Here are some links to other good places to find information on muskellunge in Wisconsin.

- Becker, George C., *Fishes of Wisconsin*, University of Wisconsin Press, Madison, 1983.
- [Wisconsin Muskellunge Waters](#), Wisconsin Department of Natural Resources, #PUBL-RS-919-96.

(Based on a document by Maureen Mecozzi, with revisions by Tim Simonson.)

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